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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,266

12/16/2004

David Keith Roberts

NL 020546

3560

24737

7590

03/04/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

YOUSEFI, SHAHROUZ

ART UNIT

PAPER NUMBER

2432

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,266	Applicant(s) ROBERTS, DAVID KEITH	
	Examiner SHAHROUZ YOUSEFI	Art Unit 2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responsive to communications: application, filed 12/16/2004; amendment filed 12/01/2008.
2. Claims 1, 3-7 and 11-13 are pending in the case. Claims 1, 3-7 and 11-13 are amended and claims 2 and 8-10 are canceled by applicants.

Response to Arguments

3. Applicant's arguments filed 12/01/2008 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-7 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seiko Epson Corporation (EP 0 947 953) hereinafter Seiko in view of Cox et al. (*Secure Spread Spectrum Watermarking for Multimedia*) hereinafter Cox.
6. With respect to claim 1, Seiko discloses dividing a whole image that contains at least one region of flat content into a plurality of regions (*decoding the compressed digital image to generate a plurality of blocks, par. [0019]*); generating a signature

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including generating signature bits from each of the plurality of regions including the at least one region of flat content (*Using a digital signature algorithm, S , and a secret key, K_s , the m -bit watermark $W = S(H, K_s)$ is computed, par. [0031]*); embedding of said signature (*A second pass of the image is then made to embed the watermark W' into the image, par. [0031]*) Seiko doesn't explicitly disclose spreading the watermark across the whole image. However, Cox discloses by spreading the signature bits of said signature across the whole image such that the signature bits from all regions can be extracted even if the at least one region of flat content has been replaced by tampering whereby the image is protected from tampering in the at least one region of flat content (*Spreading the watermark throughout the spectrum of an image ensures a large measure of security against unintentional or intentional attack, page 1677*). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Seiko with Cox to make watermark undetectable and spreading the watermark throughout the spectrum of an image ensures a large measure of security against attack, see page 1677, column 1.

7. With respect to claim 3, Seiko discloses wherein said signature is embedded as a watermark (*A second pass of the image is then made to embed the watermark W' into the image, par. [0031]*).

8. With respect to claim 4, Cox discloses wherein the watermark is a spread spectrum watermark (*Secure spread spectrum watermarking for multimedia, title*). It would have been obvious at the time the invention was made to a person having

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ordinary skill in the art to modify Seiko with Cox to make watermark undetectable and ensure a large measure of security against attack, see page 1677, column 1.

9. With respect to claim 5, Cox teaches wherein the watermark is embedded according to the best trade-off between payload size of said image, robustness of said watermark and visibility of said watermark (*as a result an attack creates visible (or audible) defects in the data. Similarly, unintentional signal distortions due to compression or image manipulation must leave the perceptually significant spectral components intact, otherwise the resulting image will be severely degraded. This is why the watermark is robust, p.1677, col. 2, lines 20-24*). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Seiko with Cox to make watermark undetectable and spreading the watermark throughout the spectrum of an image ensures a large measure of security against attack, see page 1677, column 1.

10. With respect to claim 6, Cox teaches wherein each signature bit is embedded multiple times in different locations within the image (*Spreading the watermark throughout the spectrum of an image ensures a large measure of security against unintentional or intentional attack, p. 1677, col. 1, lines 39-41*). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Seiko with Cox to make watermark undetectable and spreading the watermark throughout the spectrum of an image ensures a large measure of security against attack, see page 1677, column 1.

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11. With respect to claim 7, Cox teaches wherein spreading said signature bits comprises decomposing said signature bits to multiple areas or a single large area within said image such that information needs to be extracted from said multiple areas or said single large area within said image, in order to evaluate the original signature bits (*in contrast, the NTSC signal is decomposed into two subbands, L and M, The coefficients, M_k , within the M band are quantized...the method relies on modifying least significant bits, p.1676, col. 1, lines 20-30*). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Seiko with Cox to make watermark undetectable and spreading the watermark throughout the spectrum of an image ensures a large measure of security against attack, see page 1677, col 1.

12. Claims 11 and 12 differ from claim 1 only in that claim 1 is a method claim whereas, claims 11 and 12 are an apparatus claim and a computer readable medium claim respectively. Thus, claims 11 and 12 are analyzed as previously discussed with respect to claim 1 above.

13. With respect to claim 13, Seiko discloses the limitation of further including one of a surveillance camera, a security camera, a digital image camera, a digital video camera, and a medical imaging system which generates the images (*The watermarking techniques of the present invention may be employed in connection with various devices including a digital camera, par. [0044]*).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAHROUZ YOUSEFI whose telephone number is (571) 270-3558. The examiner can normally be reached on Monday-Friday 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/S. Y./
Examiner, Art Unit 2432

/Gilberto Barron Jr./
Supervisory Patent Examiner, Art Unit 2432